State Interoperability
Executive Committee

"Working together to assure seamless communications across boundaries during times of crisis."

Interoperability in the State of Washington and the Importance of Amateur Radio to the Process

Alan H. Komenski – AC2K
SIEC Project Manager/State Interoperability Coordinator
Washington State Patrol

Presented to
Amateur Radio Academy
April 17, 2011

Interoperabili

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

SIEC Video Presentation

Interoperabili

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Interoperability ensures emergency responders can talk and share data:

- on demand
- as needed
- as authorized
- across all jurisdictions
- across all levels of government and with all responders

Interoperabili

THE SEAL OF THE STATE OF WASHINGTON 1889
State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- **Any community/Any day:** School shootings, Fires (urban and rural), Hazmat Incident, Chemical spill and/or fire, flooding, Crime, earthquakes, volcanoes, tsunamis, aggressive drivers, bomb threats, etc.

- **All levels of government:** Federal, state, county, city, and municipalities and non-governmental organizations

- **Emergency responder agencies/teams:** Law Enforcement, Fire and Emergency Medical Response, Utilities, transportation and transit agencies, schools, Red Cross, schools, hospitals, ambulance companies, hazmat, ecology, public health, public works, transportation, ports, marine services, bomb squads, tactical teams, volunteer organizations, telephone companies, and amateur radio operators.

Interoperabili

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Communications Interoperability Challenges:

- Frequency Incompatibility
- Equipment Incompatibility
- Procedural Differences
- Lack of effective planning
- No formal agreements
  - These can all be overcome to achieve effective interoperability in a region and statewide

Interoperabili

"Working together to assure seamless communications across boundaries during times of crisis."

The Roll of the SIEC
(State Interoperability Executive Committee)

SIEC

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- The State Interoperability Executive Committee (SIEC) was an outcome of a legislative mandate in 2003 to promote interoperability statewide.
- Membership represents:
  - The Military Department (1)
  - The Washington State Patrol (1)
  - The Washington State Department of Transportation (1)
  - The Department of Information Services (1)
  - The Department of Natural Resources (1)
  - City and County governments (2)
  - State and Local Fire Chiefs (2)
  - Police Chiefs (1)
  - Sheriffs (1)
  - State and Local Emergency Management Directors (2)
  - Tribal governments (1)
  - Other - WSTC (1)

SIEC

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- The SIEC has taken a comprehensive and methodical approach
  - Designated the State Patrol as the Lead Agency
  - Recognized that interoperability starts from the ground up (local/regional level)
  - Promotes adoption of high-tech and low-tech solutions
  - In line with national standards and mandates (NIMS, NECP, SAFECOM, OEC)
  - System of systems approach
  - Secured over $30 million in federal funding

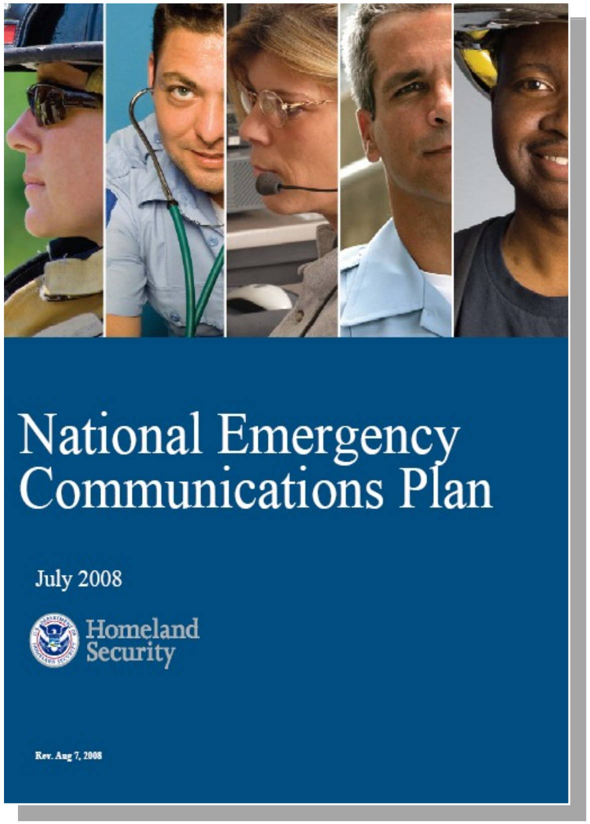
The SIEC

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- The SIEC is interested in furthering interoperability statewide by building cooperative efforts between state, federal, local and tribal systems through and the promotion of “best practices” for interoperability.
  - Regional Interoperability Committees (RIC)
  - CASM (Communication Assets and Systems Mapping Tool)
  - Statewide procedures and protocols development
  - RoIP protocol and standards adoption
  - Promotes the adoption of “standards” based technologies

National Emergency Communications Plan

Vision – Emergency responders can communicate as needed, on demand, as authorized; at all levels of government; and across all disciplines



National Emergency Communications Plan

July 2008

Homeland Security

Rev. Aug 7, 2008

- Released July 2008 and Updated in 2010
  - Developed in coordination with 150+ representatives from all major public safety organizations and private sector
  - Addresses operability, interoperability, continuity
- First National Strategic Plan
  - 3 Performance-based Goals
  - 7 Objectives that set priorities
  - 92 Milestones to track progress
- Implementation
  - Build capability/capacity (governance, exercises, SOP, usage)
  - National Assessments
  - Target resources (funding,

National Emergency Communications Plan

- **In Title XVIII of the Homeland Security Act of 2002, Congress directed OEC to develop the NECP (in coordination with public / private stakeholders)**

- **The NECP identifies the capabilities and initiatives needed for communications operability, interoperability, and continuity of communications for emergency responders nationwide**

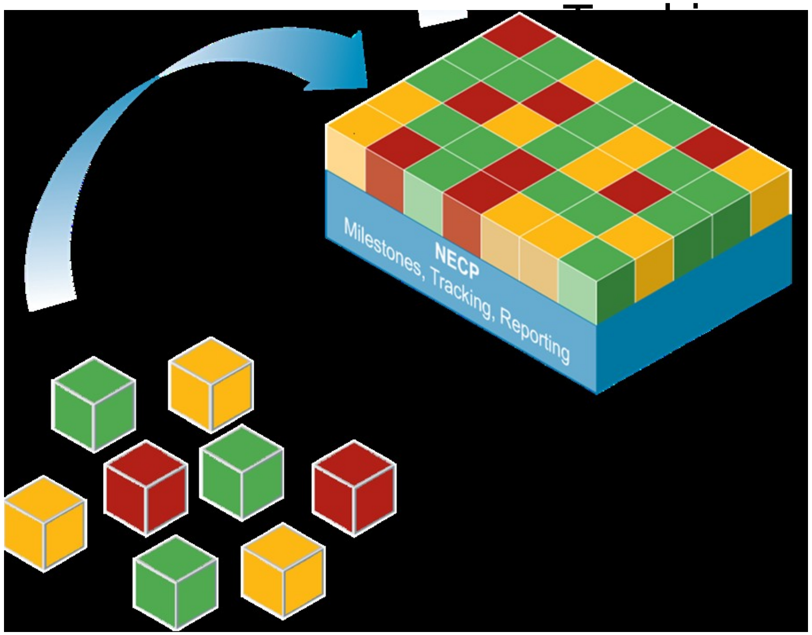
- **A stakeholder-driven approach was used to develop the NECP through key homeland security and emergency communications partnerships: SAFECOM EC / ERC, ECPC, FPIC, NPSTC, NSTAC, and**

National Emergency Communications Pla

NECP Strengths and Benefits

Post-NECP:
The NECP brings disparate efforts together toward common goals and provides a framework for:

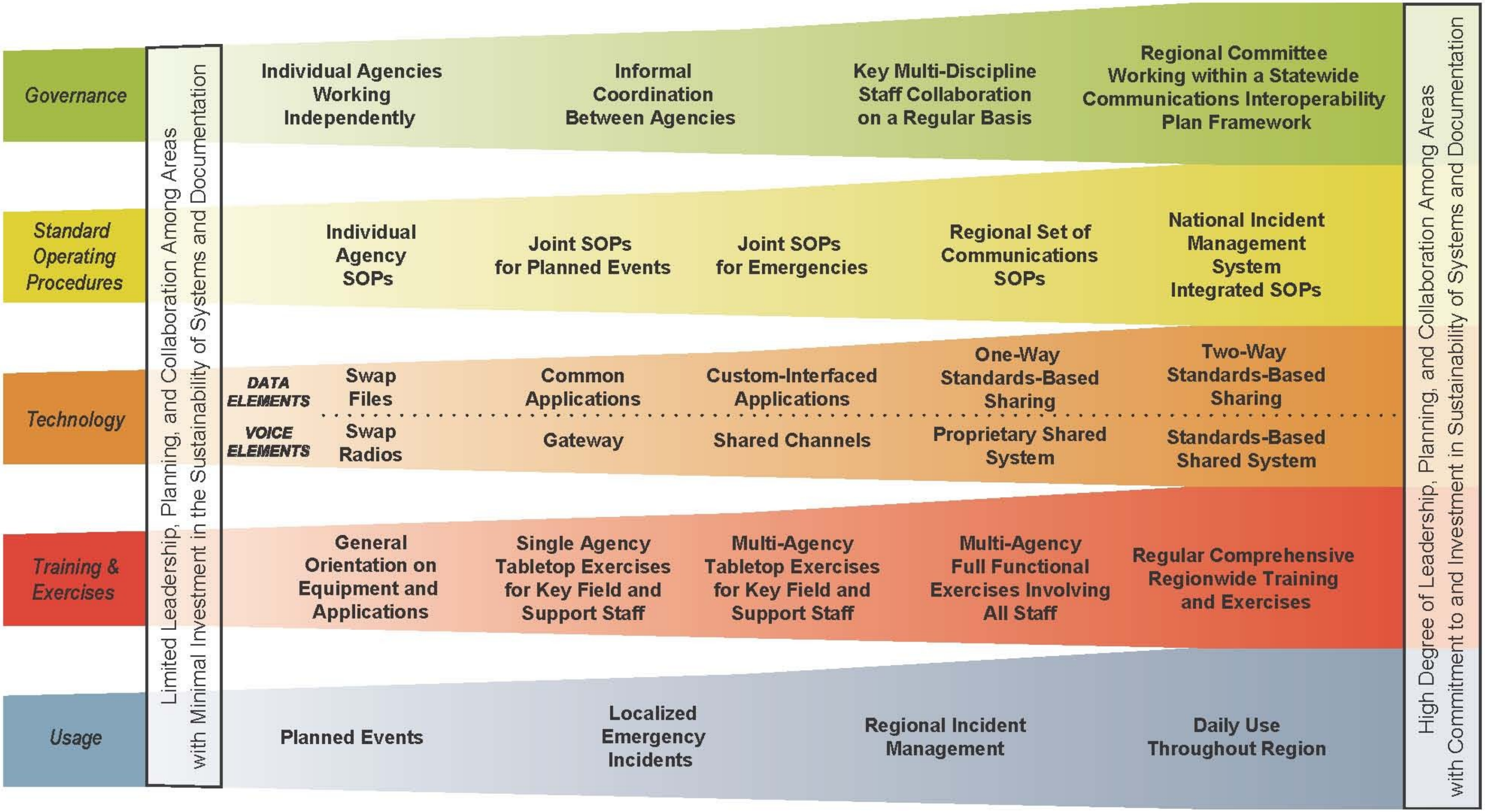
Promoting collaboration
Decreasing duplication
Tracking progress



Pre-NECP:
Numerous programs and projects individually addressed parts of emergency communications issues across F/S/L/T governments

Homeland Security

Interoperability Continuum



Limited Leadership, Planning, and Collaboration Among Areas with Minimal Investment in the Sustainability of Systems and Documentation

Governance
- Individual Agencies Working Independently
- Informal Coordination Between Agencies
- Key Multi-Discipline Staff Collaboration on a Regular Basis
- Regional Committee Working within a Statewide Communications Interoperability Plan Framework

Standard Operating Procedures
- Individual Agency SOPs
- Joint SOPs for Planned Events
- Joint SOPs for Emergencies
- Regional Set of Communications SOPs
- National Incident Management System Integrated SOPs

Technology

DATA ELEMENTS
- Swap Files
- Common Applications
- Custom-Interfaced Applications
- One-Way Standards-Based Sharing
- Two-Way Standards-Based Sharing

VOICE ELEMENTS
- Swap Radios
- Gateway
- Shared Channels
- Proprietary Shared System
- Standards-Based Shared System

Training & Exercises
- General Orientation on Equipment and Applications
- Single Agency Tabletop Exercises for Key Field and Support Staff
- Multi-Agency Tabletop Exercises for Key Field and Support Staff
- Multi-Agency Full Functional Exercises Involving All Staff
- Regular Comprehensive Regionwide Training and Exercises

Usage
- Planned Events
- Localized Emergency Incidents
- Regional Incident Management
- Daily Use Throughout Region

High Degree of Leadership, Planning, and Collaboration Among Areas with Commitment to and Investment in Sustainability of Systems and Documentation

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Washington State Communications Interoperability Plan

- SCIP is the roadmap for interoperability in Washington State
- Original document published in 2007, with a targeted update in 2011
- 2011 Update draft is under review

Washington State Communications Interoperability Plan

- Goals and objectives to achieve statewide interoperability
- Outlines the technical approach for Washington State
  - “System of Systems”
  - Interoperable channel deployment
  - Common P25 technology platforms for State agencies
  - Operability, Sustainability, Contingency Planning

Washington State Communications Interoperability Plan

- Interoperable Channel Deployment
  - Encourage the use of identified National and State interoperability channels
    - OSCCR
    - REDNET
    - LERN
    - ICALL, ITAC, VTAC and others
    - Interoperable interfaces to other support voice and data systems

Washington State Communications Interoperability Plan

- New SCIP incorporates a discussion on Public Safety Broadband efforts in Washington State.

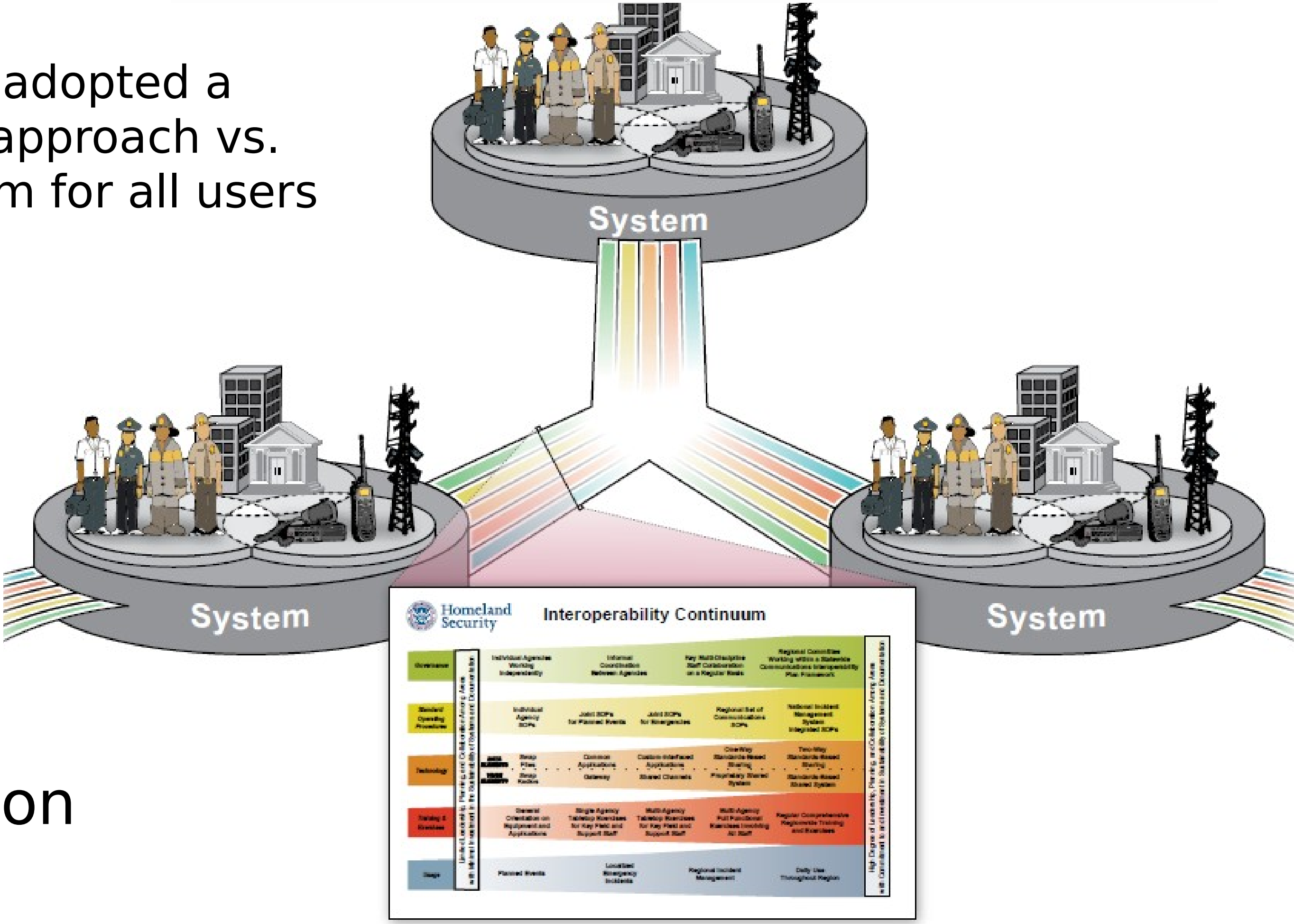
- Re-adjusts priorities based on the progress that has been made over the past four years.

- It is more strategically oriented than the first SCIP.

The SIEC

THE SEAL OF THE STATE OF WASHINGTON 1889
State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Washington State has adopted a "System of Systems" approach vs. building one big system for all users and all disciplines.



More efficient
Easier transition
Lower cost

SIEC

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Outreach and communication is the key to success:

The SIEC's approach empowers and assists emergency responder agencies to work together at the local level to develop interoperability from the ground up (rather than state down).

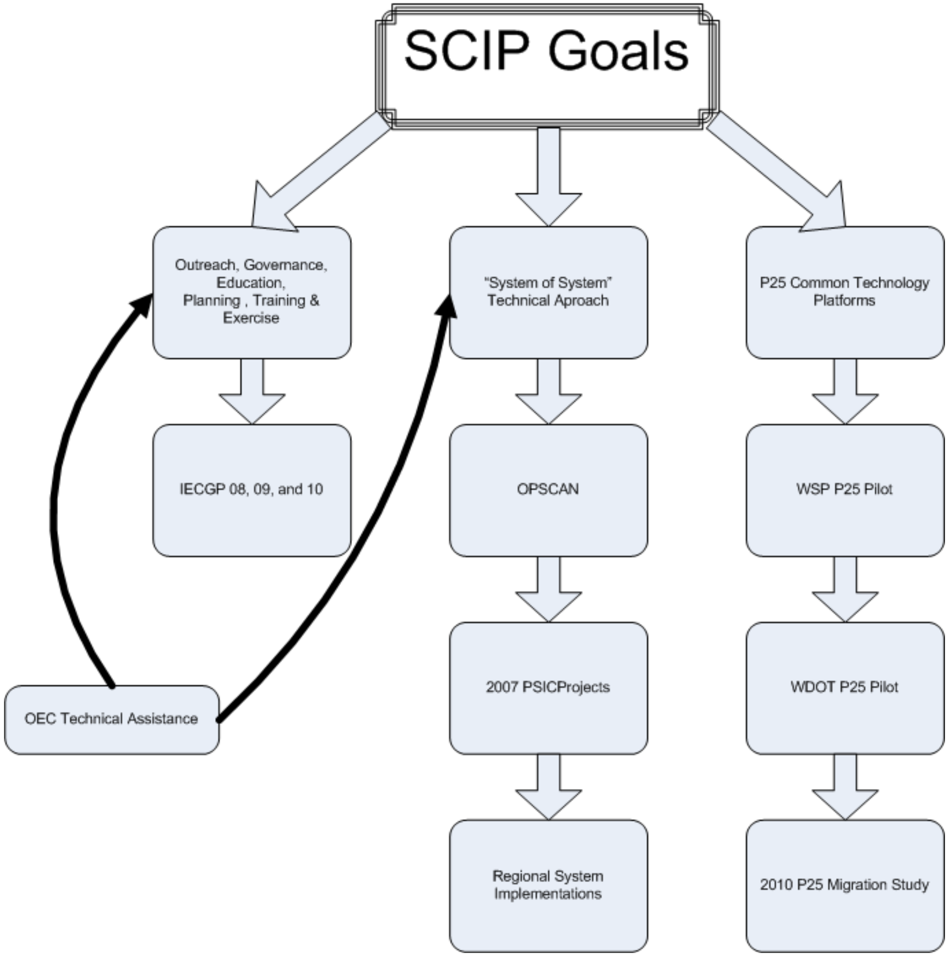
Current Efforts

- Outreach and education
- Development and promotion of best practices and standards (Interoperability Continuum)
- Establishing technical path for migration to future interoperability technologies
  - Interoperable channel deployment
  - RoIP
  - P25
  - Serve as a central point for outreach and information

Current Efforts

- Establishing technical path for migration to future interoperability technologies
  - RoIP
    - Working with NIST on the development of “bridging” standards (BSI) to legacy systems, P25 and Broadband
  - Federal Technical Assistance Projects
    - Interoperable channel deployment
    - Regional Interoperability Committee Framework
    - OSCCR Phase III Connectivity Review
    - Gateway Workshops
  - Critical monitoring of statewide narrowbanding progress

Alignment of Activities to the SCIP



SCIP Goals

Outreach, Governance, Education, Planning , Training & Exercise

IECGP 08, 09, and 10

"System of System" Technical Aproach

OPSCAN

2007 PSICProjects

Regional System Implementations

P25 Common Technology Platforms

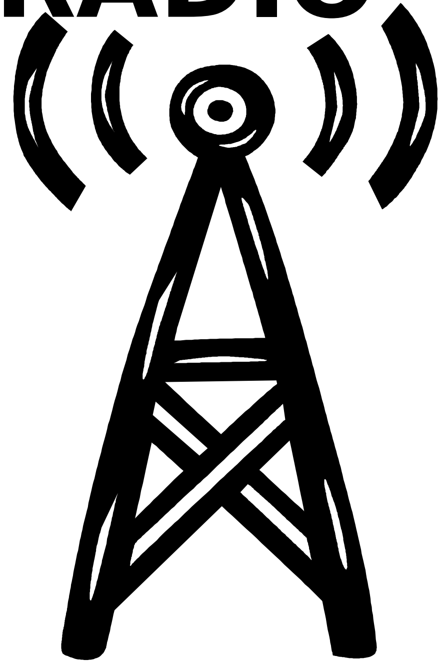
WSP P25 Pilot

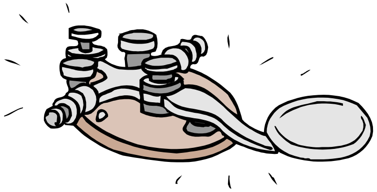
WDOT P25 Pilot

2010 P25 Migration Study

OEC Technical Assistance

THE ROLL FOR AMATEUR RADIO





State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- Since 9/11, 2001, amateur radio has had a much higher profile among emergency communication stakeholder groups.

- At all levels of government, amateur radio is now being incorporated into emergency operations plans.

- Amateur radio capabilities continue to perform in emergency situations that affect and degrade many public safety systems.

- Many agencies supplemented their emergency communications systems through the use of cellular telephone - NOT RELIABLE IN EMERGENCIES.

THE SEAL OF THE STATE OF WASHINGTON 1889
State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

- Unfettered cross-border communications capabilities.

- Willing volunteers, with their own equipment.

- Significant Federal dollars have been spent over the last decade to enhance amateur radio capabilities in the nations state and local emergency operations centers.

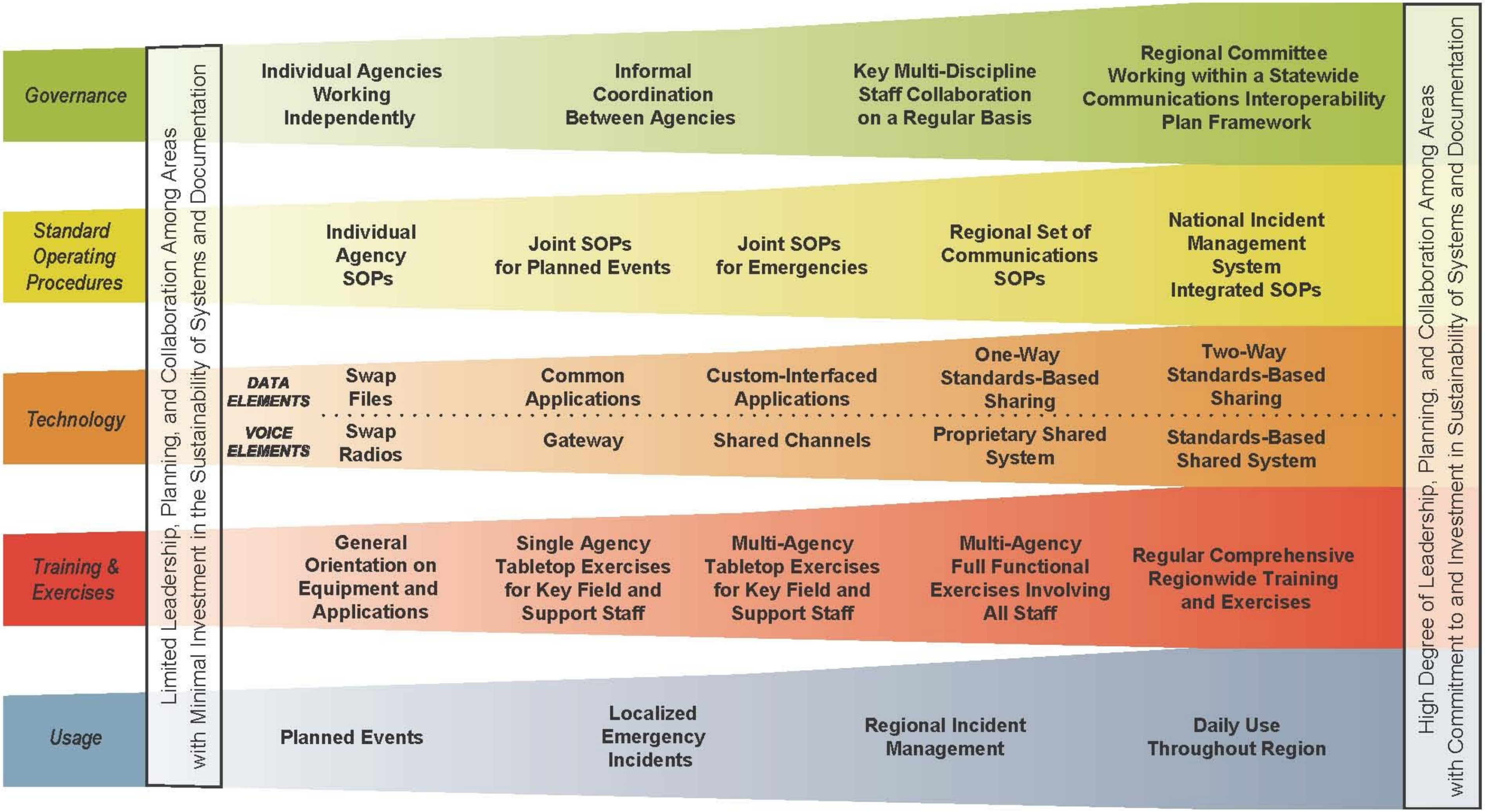
- Grant $$$$$ expenditures across the country have been applied to both voice and data capability amateur radio systems.

- There have been “bumps” in this relationship:
  - Use by unlicensed operators.
  - Restricted use by licensed government employees.
  - Fading on-going volunteer interest.
  - Credential issues.

- The Interoperability Continuum and Amateur Radio
  - – Good planning leads to good results
  - – Sustainability of systems and resource personnel
    - Self sustained operations
    - Compatibility planning
  - – Training (and more training)
  - – Understand interoperability “best practices” and be willing to adopt them

Homeland Security

Interoperability Continuum



Limited Leadership, Planning, and Collaboration Among Areas with Minimal Investment in the Sustainability of Systems and Documentation

Governance

- Individual Agencies Working Independently
- Informal Coordination Between Agencies
- Key Multi-Discipline Staff Collaboration on a Regular Basis
- Regional Committee Working within a Statewide Communications Interoperability Plan Framework

Standard Operating Procedures

- Individual Agency SOPs
- Joint SOPs for Planned Events
- Joint SOPs for Emergencies
- Regional Set of Communications SOPs
- National Incident Management System Integrated SOPs

Technology

DATA ELEMENTS

- Swap Files
- Common Applications
- Custom-Interfaced Applications
- One-Way Standards-Based Sharing
- Two-Way Standards-Based Sharing

VOICE ELEMENTS

- Swap Radios
- Gateway
- Shared Channels
- Proprietary Shared System
- Standards-Based Shared System

Training & Exercises

- General Orientation on Equipment and Applications
- Single Agency Tabletop Exercises for Key Field and Support Staff
- Multi-Agency Tabletop Exercises for Key Field and Support Staff
- Multi-Agency Full Functional Exercises Involving All Staff
- Regular Comprehensive Regionwide Training and Exercises

Usage

- Planned Events
- Localized Emergency Incidents
- Regional Incident Management
- Daily Use Throughout Region

High Degree of Leadership, Planning, and Collaboration Among Areas with Commitment to and Investment in Sustainability of Systems and Documentation

State Interoperability
Executive Committee
"Working together to assure seamless communications across boundaries during times of crisis."

Questions?